

GenCore version 5.1.7  
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OM protein - protein search, using sw model

Run on: February 15, 2006, 23:01:41 ; Search time 193 Seconds  
(without alignments)  
93.340 Million cell updates/sec

Title: US-10-737-288-1  
Perfect score: 243  
Sequence: 1 GIGDPVTLKSGAICHVPFC.....RRYKQIGTCGLPGTKCKKCP 41

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : A\_Geneseq\_21:.\*  
1: Geneseqp1980s:.\*  
2: Geneseqp1990s:.\*  
3: Geneseqp2000s:.\*  
4: Geneseqp2001s:.\*  
5: Geneseqp2002s:.\*  
6: Geneseqp2003as:.\*  
7: Geneseqp2003bs:.\*  
8: Geneseqp2004s:.\*  
9: Geneseqp2005s:.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	243	100.0	41	4	AAB86265
2	243	100.0	41	7	ADG25619 Human hBD
3	243	100.0	41	8	ADQ07992 Mature Hu
4	243	100.0	64	2	AAW81071 Amino aci
5	243	100.0	64	5	AAU91049 Transplan
6	243	100.0	64	6	ADA83836 Human DBF
7	243	100.0	64	8	ADJ75574 Marker ge
8	243	100.0	64	8	ADN04285 Antipsori
9	243	100.0	64	8	ADQ07993 Human bet
10	243	100.0	64	9	ADX08341 Human bet
11	243	100.0	64	9	AAE81080 Human pos
12	237	97.5	41	2	AAW19134 Antimicro
13	237	97.5	64	5	AAU91048 Transplan
14	237	97.5	64	9	ADX08424 Beta-defe
15	214	88.1	36	3	AAV51215 Human cat
16	207	85.2	35	6	ABR43510 Human bet
17	202	83.1	34	4	AG80294 Human bet
18	199.5	82.1	35	6	ABR43579 Human bet
19	193	79.4	32	5	AAE23018 Human bet
20	193	79.4	32	8	ADP48726 Human bet
21	150	61.7	40	2	AAW19133 Antimicro
22	145	59.7	24	9	ADX08451 Human bet
23	123	50.6	64	2	AAW24332 Tracheal
24	123	50.6	64	2	AAW66205 Bovine tr

Aar66204 Bovine tr  
Aaw69696 Human tra  
Aar63524 Bovine tr  
Aar66203 Bovine tr  
Aaw66434 Cationic  
Aay91733 Cationic  
Aaw59610 Antimicro  
Add35356 Antimicro  
Adw73995 Bovine tr  
Ady67481 Tumor cel  
Aau91052 Transplan  
Aar63522 Beta-defe  
Aar63522 Bovine ne  
Aau91033 Transplan  
Aau91033 Beta-defe  
Aad86263 Murine be  
Aae02127 Mouse bet  
Aar63515 Bovine ne  
Aar63512 Bovine ne  
Aau91028 Transplan

## ALIGNMENTS

### RESULT 1

AAB86265	123	50.6	64	2	AAR66204
ID AAB86265 standard; peptide; 41 AA.	123	50.6	64	2	AAW69696
XX	108	44.4	38	2	AAR63524
AC AAB86265;	108	44.4	38	2	AAR66203
XX	108	44.4	38	2	AAW66434
DT 05-SEP-2001 (first entry)	108	44.4	38	3	AAV91733
XX	108	44.4	38	6	ABU59610
DE Human beta-defensin peptide fragment hBD2.	108	44.4	38	8	ADD35356
XX	108	44.4	38	9	ADW73995
Beta-defensin; antibiotic; antibacterial; Helicobacter pylori infection; antifungal; gastrointestinal tract infection; human.	106	43.6	64	5	AAU91052
XX Homo sapiens.	106	43.6	64	9	ADX08426
XX	104	42.8	42	5	AAR63522
FN WO200138349-A2.	104	42.8	42	5	AAU91033
XX	104	42.8	42	9	ADX08410
PD 31-MAY-2001.	102.5	42.2	43	4	AAB86263
XX	102.5	42.2	56	8	ADR23112
PF 25-NOV-2000; 2000WO-EP011770.	102.5	42.2	63	4	AAE02127
XX	101	41.6	42	2	AAR63515
PR 26-NOV-1999; 99DB-01057043.	101	41.6	42	2	AAR63512
XX	101	41.6	42	5	AAU91028
(PORS/) FORSSMANN W.	101	41.6	42	5	AAU91028
XX					
PA Aab86265 Human bet					
XX					
PI Adg25619 Human hBD					
PI					
PI Adq07992 Mature Hu					
XX					
DR Aaw81071 Amino aci					
XX					
DR Aau91049 Transplan					
XX					
DR Ada83836 Human DBF					
XX					
PT Adj75574 Marker ge					
XX					
PT Adn04285 Antipsori					
XX					
PS Adq07993 Human bet					
XX					
PS Aae81080 Human pos					
XX					
CC Aaw19134 Antimicro					
CC					
CC Aau91048 Transplan					
CC					
CC Adx08424 Beta-defe					
CC					
CC Aay51215 Human cat					
CC					
CC Aab86263 Murine be					
CC					
CC Aag80294 Human bet					
CC					
CC Aae23018 Human bet					
CC					
CC Aaf48726 Human bet					
CC					
CC Aaw19133 Antimicro					
CC					
CC Aax08451 Human bet					
CC					
CC Aar24332 Tracheal					
CC					
CC Aar66205 Bovine tr					
XX					

This invention describes a novel beta-defensin (I) comprising the formula Z1-Arg-Cys-Ile-Gly-Leu-X-His-Lys-Ile-Gly-Thr-Cys-Z2 where, X = Phe or Arg, Z1 = a substituted or unsubstituted amino acid residue with at least one further Cys, Z2 = either a peptide residue of up to 20 amino acids, comprising at least two directly neighboring Cys or a carboxyl group or a derivative of a carboxyl group. The products of the invention have antibiotic, antibacterial and antifungal activity. (I) may be used as an antibiotic, especially against Streptococcus, Bacillus, Pseudomonas, Escherichia, Staphylococcus, and Candida. (I) is useful for treating a gastrointestinal tract infection, caused by Helicobacter pylori. This sequence represents a human beta-defensin described in the method of the invention